

SOUTHEAST ARIZONA FIRE WEATHER ANNUAL REPORT 2010

1. Summary

While dry and warm conditions would begin the first half of January 2010, El Nino would lay claim to the remainder of the month, as well as the remainder of the winter season as the second half of January and all of February would see at or below normal temperatures and above normal rainfall. This shift would result in the 4th wettest January/February period on record.

What is typically associated with the start of fire weather season was forced to wait as continued cool and moist conditions persisted into the first half of March. However, one last storm system pushed through southeast Arizona March 22nd, which brought another round of valley rain and mountain snow to the area. To offset this, the last week of the month proved dry and unseasonably warm. This warmth would be short lived, as, while conditions remained dry, temperatures through April would make this the coolest April since 1999. El Nino wasn't quite finished yet, as a storm late in the month would bring yet another round of valley rain and mountain snow. Another storm system on May 2nd would prove the last hurdle to the start of the 'dry' season, as the remainder of May would be fairly dry. And while temperatures on average would remain below normal, they would climb throughout the month, with the high temperature in Tucson breaking 100 on May 28th, only 2 days later than average. June would attempt to make up for lost ground, as it would be the 10th warmest June on record with no precipitation over southeast Arizona.

Monsoonal moisture would begin to filter into the state the last 10 days of June but, although the official "Monsoon Season" starts on June 15th, the daily afternoon and evening showers and thunderstorms typically associated with the start of the monsoon would not start until July. And while July would see monthly rainfall over a half inch above normal, the rest of the 2010 monsoon would disappoint with rainfall amounts, though varied, generally below normal.

Hot temperatures would continue into the fall, with October 1st recording an all time high temperature for that month of 102. Strong upper level low pressure right after that would put an end to triple digits and bring temperatures more in line with seasonal normals, as well as bringing a return to severe weather to southeast Arizona for the first week of the month. Precipitation for the rest of the year would become increasingly isolated as the El Nino that started the year would transition into a La Nina. And while a cold Pacific storm would bring snow into many locations in southeast Arizona, even flurries in the valley floors, rainfall amounts for the year would be on average about a half inch below normal.

Two fires had either Type I or Type II Incident Command Teams attached: the Horseshoe and Paradise. The Horseshoe, located 5 miles south of Portal, AZ, burned an approximate 3,386 acres. The Paradise fire, located 16 miles south of Alpine, AZ, burned 6,355 acres. WFO Tucson had 7 IMET dispatch days due to the Paradise fire. IMETs for the Horseshoe fire came from surrounding offices.

Twenty-eight Fire Weather Watches were issued this year, all but one of which were upgraded to Red Flag Warnings. Only eight of these would verify. Spot forecasts overall decreased from 2009, with 66 for wildfires this year compared to 92 in 2009 and 60 for prescribed burns versus 108 in 2009.

2. Fire Weather Watch/Red Flag Warning Verification

For an event to occur, the fire danger rating, minimum relative humidity, and wind speed values (sustained and/or gusts) must have met the following criteria listed below (for 3 or more hours) and published in the 2010 Southwest Area Operations Plan.

Fire Danger Rating:	High or greater
Minimum Relative Humidity:	15 percent or less
Sustained Wind Speed (ASOS):	25 mph or greater
Sustained Wind Speed (RAWS):	20 mph or greater
Wind Speed Gusts (ASOS & RAWS):	35 mph or greater

Red Flag Zone Verification Statistics:

<u>Zone</u>	<u>POD</u>	<u>FAR</u>	<u>CSI</u>	<u>Avg. Lead Time</u>	<u>Issued</u>
146	1.0	0.91	0.09	*0.00 Hours	11
147	1.0	0.13	0.88	16.79 Hours	8
148	1.0	0.60	0.40	16.58 Hours	16
District	1.0	0.59	0.41	16.69 Hours	35

* The only RFW to verify was issued as conditions were occurring, thus, no lead time.

Fire Weather Watch Zone Verification Statistics:

<u>Zone</u>	<u>Issued</u>	<u>Upgraded to RFW</u>	<u>Verified</u>	<u>Avg. Lead Time</u>
146	10	10	0	N/A
147	5	4	4	39.40 Hours
148	13	13	4	37.20 Hours
District	28	27	8	38.30 Hours

3. Spot Forecasts

<u>Zone</u>	<u>Wildfires</u>	<u>Prescribed</u>	<u>Other</u>	<u>Total</u>
146	10	33	0	43
147	3	7	0	10
148	53	20	0	73
District	66	60	0	126

4. IMET Dispatches

IMET: Steven M. Reedy

Days out of the office: 7

Number of Fires: 1

- Paradise (near Alpine, AZ) June 23rd to June 29th

5. Fire Weather Teaching Assignments

<u>Course</u>	<u>Location</u>	<u>Dates</u>	<u>Instructor</u>
S290	Tombstone, AZ	2/27 to 2/28	Steven M. Reedy
S390	Tucson, AZ	4/14 to 4/15	Steven M. Reedy
S290	Avra Valley, AZ	11/30 to 12/1	Steven M. Reedy